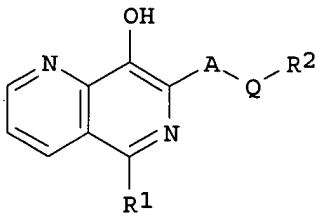
1/19/2005

L5 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1016008 CAPLUS
DOCUMENT NUMBER: 142:6507
TITLE: Preparation of naphthyridine integrase inhibitors
INVENTOR(S): Johns, Brian A.
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 154 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101512	A2	20041125	WO 2004-US14814	20040512

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-470059P P 20030513
GI



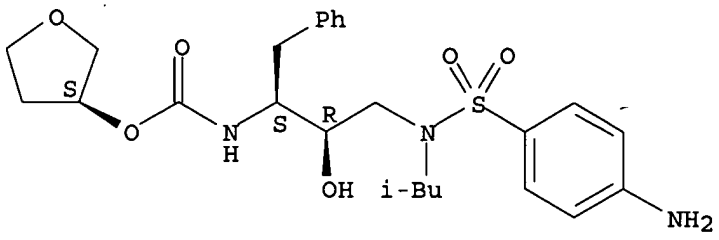
I

AB The title compds. [I; R1 = H, halo, alkyl, etc.; R2 = cycloalkyl, (un)substituted aryl, heterocyclyl; A = heterocycle; Q = alkyl, O, CO, SO2, etc.] that are HIV integrase inhibitors and therefore are useful in the inhibition of HIV replication, the prevention and/or treatment of infection by HIV, and in the treatment of AIDS and/or ARC, were prepared E.g., a multi-step synthesis of 7-(5-benzyl-4H-1,2,4-triazol-3-yl)-1,6-naphthyridin-8-ol, was given. The compds. I have anti-HIV activity in the range IC50 of 1-1000 nM. The pharmaceutical composition comprising the compound I is disclosed.

IT **161814-49-9**, Amprenavir **198904-31-3**, BMS-232632
206361-99-1, TMC-114
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(co-drug; preparation of naphthyridine integrase inhibitors for treating HIV infection in combination with other therapeutic agents)

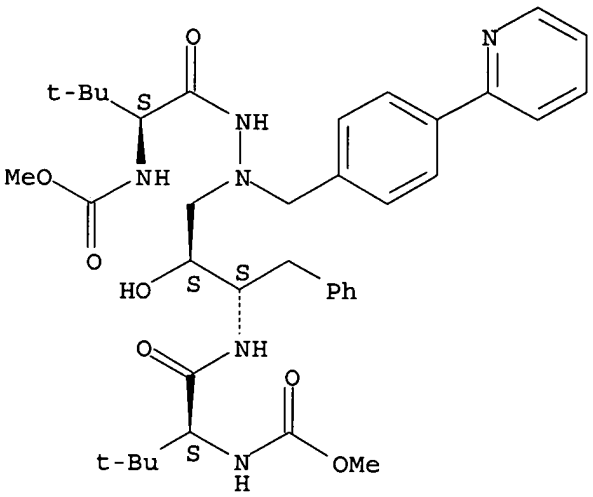
RN 161814-49-9 CAPLUS
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



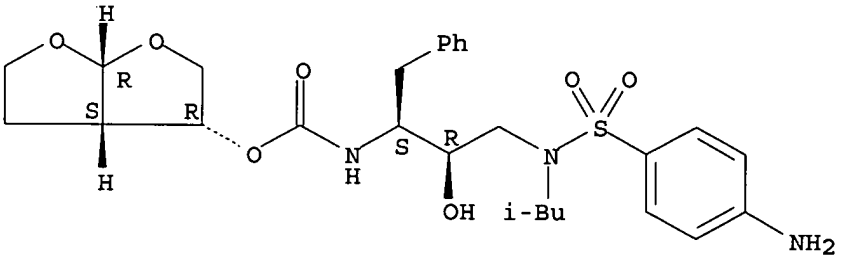
RN 198904-31-3 CAPLUS
CN 2,5,6,10,13-Pentaazatetradecanedioic acid, 3,12-bis(1,1-dimethylethyl)-8-hydroxy-4,11-dioxo-9-(phenylmethyl)-6-[[4-(2-pyridinyl)phenyl]methyl]-, dimethyl ester, (3S,8S,9S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 206361-99-1 CAPLUS
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3R,3aS,6aR)-hexahydrofuro[2,3-b]furan-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:703121 CAPLUS
DOCUMENT NUMBER: 141:207236
TITLE: Preparation of 1,1-dioxido-4H-1,2,4-benzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents
INVENTOR(S): Pratt, John K.; Betebenner, David A.; Donner, Pamela

L.; Green, Brian E.; Kempf, Dale J.; McDaniel, Keith F.; Maring, Clarence J.; Stoll, Vincent S.; Zhang, Rong

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 278 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004167123	A1	20040826	US 2003-699513		20031031
PRIORITY APPLN. INFO.:			US 2002-423209P	P	20021101
			US 2003-461784P	P	20030410
			US 2003-489448P	P	20030723
			US 2003-509107P	P	20031006

OTHER SOURCE(S): MARPAT 141:207236

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

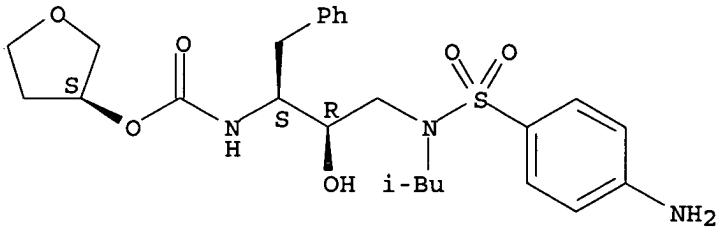
AB Title compds. I [wherein A = monocyclic or bicyclic ring selected from hetero/aryl, cycloalkyl, cycloalkenyl, heterocyclyl; R1 = H, (un)substituted cycloalkyl/cyclo/alkenyl, alkoxycarbonyl/alkoxy/aryl/arylsulfonyl/arylsulfanyl/carboxy/cyano/heteroaryl/alkyl, heterocyclyl, etc.; R2, R3 = independently H, cyano, halo, (un)substituted alkenyl, alkoxycarbonyl, alkyl, heteroaryl, etc.; CR2R3C = 5- or 6-membered ring selected from Ph, pyridinyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, cyclopentyl, and cyclohexyl; R4 = OH and derivs., halo, NH2 and derivs., etc.; R5 = independently CN, NO2, (un)substituted alk(en/yn)yl, hetero/aryl, arylsulfonyl, heterocyclyl etc.; n = 0-4; their pharmaceutically acceptable salts, stereoisomers, or tautomers] were prepared as hepatitis C (HCV) polymerase inhibitors for treating related infections. Thus II was prepared by alkylation of III (preparation given) with tris(methylthio)methyl Me sulfate in AcOH, cyclization with 2-amino-4[(4-methoxymethoxy)methyl]thiophene-3-sulfonamide, deprotection, condensation with cyclopropanecarboxaldehyde, reduction with LiBH4. I inhibited HCV polymerase with IC50's in the range of 0.002 μM to 500 μM. I inhibited RNA replication with EC50 in the range of 0.002 μM to > 100 μM. I exhibited a cytopathic effect reduction with TC50's in the range of 6.6 μM to > 100 μM.

IT **161814-49-9**, Amprenavir **198904-31-3**, Atazanavir **206361-99-1**, TMC-114
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination therapy; preparation of 1,1-dioxidobenzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents)

RN 161814-49-9 CAPLUS

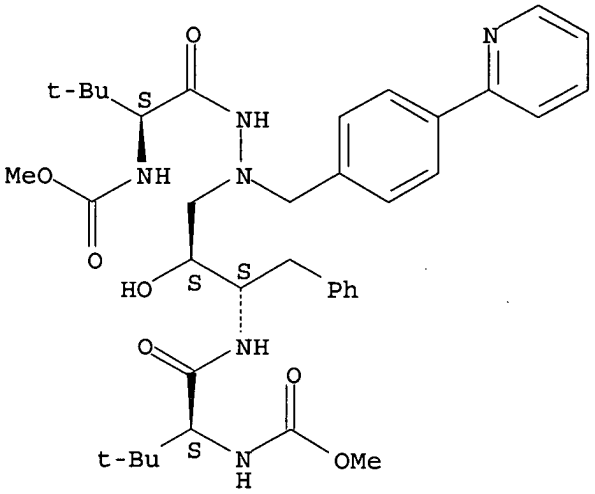
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



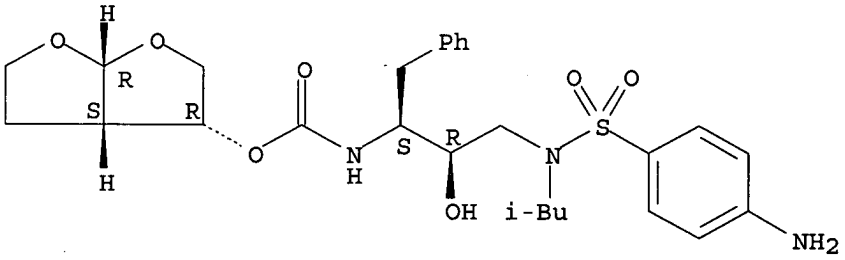
RN 198904-31-3 CAPLUS
CN 2,5,6,10,13-Pentaazatetradecanedioic acid, 3,12-bis(1,1-dimethylethyl)-8-hydroxy-4,11-dioxo-9-(phenylmethyl)-6-[[4-(2-pyridinyl)phenyl]methyl]-, dimethyl ester, (3S,8S,9S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 206361-99-1 CAPLUS
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3R,3aS,6aR)-hexahydrofuro[2,3-b]furan-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

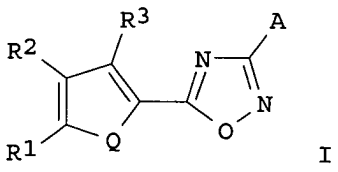


L5 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:565086 CAPLUS
DOCUMENT NUMBER: 141:123632
TITLE: Preparation of 3,5-Disubstituted-[1,2,4]-oxadiazoles and analogs as activators of caspases and inducers of apoptosis
INVENTOR(S): Cai, Sui Xiong; Zhang, Han-zhong; Kuemmerle, Jared D.; Zhang, Hong; Kemnitzer, William E.

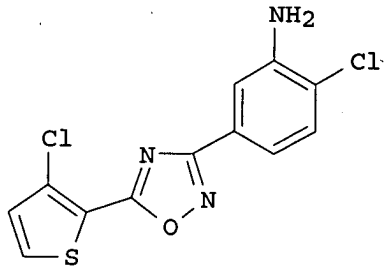
PATENT ASSIGNEE(S): Cytovia, Inc., USA
SOURCE: PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058253	A1	20040715	WO 2003-US40308	20031218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004127521	A1	20040701	US 2003-737865	20031218
PRIORITY APPLN. INFO.:			US 2002-433953P P	20021218

OTHER SOURCE(S): MARPAT 141:123632
GI



I



II

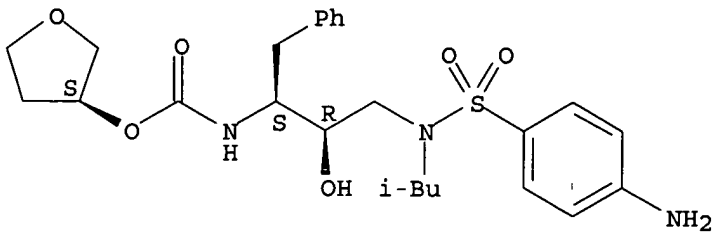
AB Title compds. I [R1-3 = H, halo, haloalkyl, aryl, etc.; Q = S, O, amino; A = heterocycle, carbocycle] are prepared For instance, 3-amino-4-chlorobenzamidoxime (preparation given) is reacted with 3-chlorothiophene-2-carbonyl chloride (pyridine, reflux, 50 min) to give II. II and other examples are potent caspase cascade activators and inducers of apoptosis in solid tumor cells, e.g., human breast cancer cell lines T-47D and ZR-75-1.

IT **161814-49-9**, Amprenavir **198904-31-3**, CGP-73547
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination pharmaceutical; preparation of 3,5-Disubstituted-[1,2,4]-oxadiazoles and analogs as activators of caspases and inducers of apoptosis)

RN 161814-49-9 CAPLUS

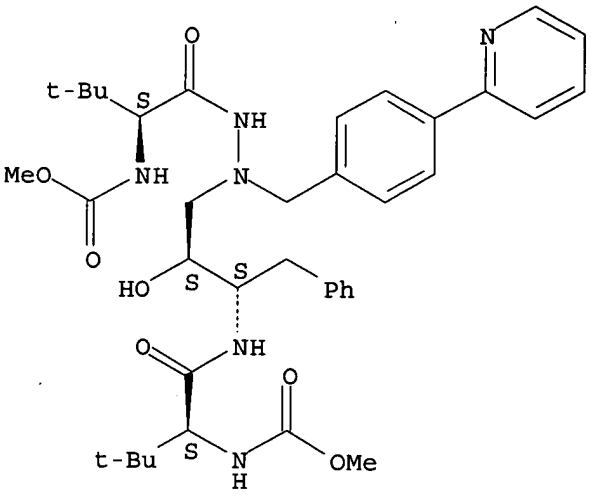
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3S)-tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 198904-31-3 CAPLUS
CN 2,5,6,10,13-Pentaazatetradecanedioic acid, 3,12-bis(1,1-dimethylethyl)-8-hydroxy-4,11-dioxo-9-(phenylmethyl)-6-[[4-(2-pyridinyl)phenyl]methyl]-, dimethyl ester, (3S,8S,9S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L5 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:412943 CAPLUS
DOCUMENT NUMBER: 140:423711
TITLE: Preparation of 1,1-dioxido-4H-1,2,4-benzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents
INVENTOR(S): Pratt, John K.; Betebenner, David A.; Donner, Pamela L.; Green, Brian E.; Kempf, Dale J.; McDaniel, Keith F.; Maring, Clarence J.; Stoll, Vincent S.; Zhang, Rong
PATENT ASSIGNEE(S): Abbott Laboratories, USA
SOURCE: PCT Int. Appl., 514 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041818	A1	20040521	WO 2003-US34707	20031031

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,

TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004097492	A1	20040520	US 2002-285714		20021101
US 2004087577	A1	20040506	US 2003-410853		20030410
US 2004162285	A1	20040819	US 2003-625121		20030723
PRIORITY APPLN. INFO.:			US 2002-285714	A	20021101
			US 2003-410853	A	20030410
			US 2003-625121	A	20030723
			US 2003-679881	A	20031006

OTHER SOURCE(S): MARPAT 140:423711
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein A = monocyclic or bicyclic ring selected from hetero/aryl, cycloalkyl, cycloalkenyl, heterocyclyl; R1 = H, (un)substituted cycloalkyl/cyclo/alkenyl, alkoxycarbonyl/alkoxy/aryl/arylsulfonyl/arylsulfanyl/carboxy/cyano/heteroaryl/alkyl, heterocyclyl, etc.; R2, R3 = independently H, cyano, halo, (un)substituted alkenyl, alkoxycarbonyl, alkyl, heteroaryl, etc.; CR2R3C = 5- or 6-membered ring selected from Ph, pyridinyl, pyrimidinyl, pyridazinyl, thienyl, furanyl, pyrazolyl, oxazolyl, thiazolyl, imidazolyl, isoxazolyl, isothiazolyl, triazolyl, thiadiazolyl, tetrazolyl, cyclopentyl, and cyclohexyl; R4 = OH and derivs., halo, NH2 and derivs., etc.; R5 = independently CN, NO2, (un)substituted alk(en/yn)yl, hetero/aryl, arylsulfonyl, heterocyclyl etc.; n = 0-4; their pharmaceutically acceptable salts, stereoisomers, or tautomers] were prepared as hepatitis C (HCV) polymerase inhibitors for treating related infections. Thus II was prepared by alkylation of III (preparation given) with tris(methylthio)methyl Me sulfate in AcOH, cyclization with 2-amino-4[(4-methoxymethoxy)methyl]thiphene-3-sulfonamide, deprotection, condensation with cyclopropanecarboxaldehyde, reduction with LiBH4. I inhibited HCV polymerase with IC50's in the range of 0.002 μM to 500 μM. I inhibited RNA replication with EC50 in the range of 0.002 μM to > 100 μM. I exhibited a cytopathic effect reduction with TC50's in the range of 6.6 μM to > 100 μM.

IT **161814-49-9**, Amprenavir **198904-31-3**, Atazanavir
206361-99-1, TMC-114
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(combination therapy; preparation of 1,1-dioxidobenzothiadiazines as hepatitis C polymerase inhibitors and anti-infective agents)

RN 161814-49-9 CAPLUS

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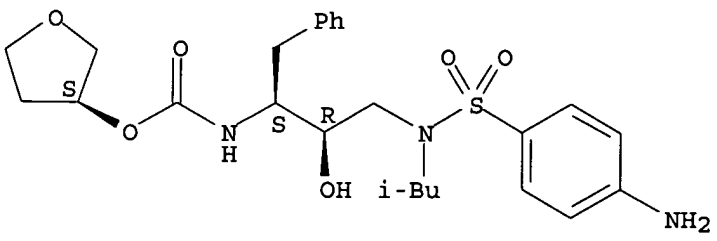
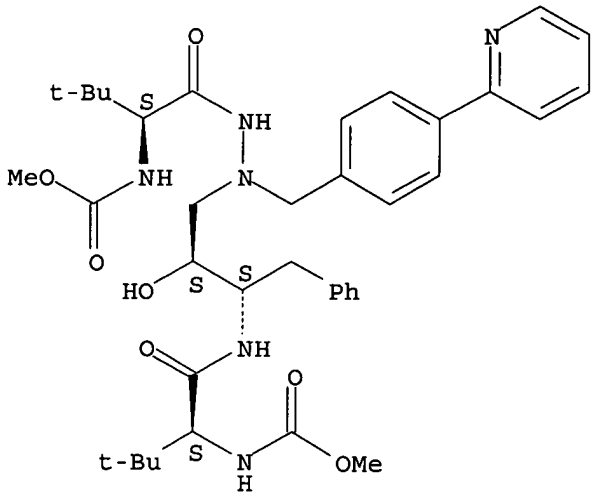
Absolute stereochemistry.



RN 198904-31-3 CAPLUS

CN 2,5,6,10,13-Pentaazatetradecanedioic acid, 3,12-bis(1,1-dimethylethyl)-8-hydroxy-4,11-dioxo-9-(phenylmethyl)-6-[[4-(2-pyridinyl)phenyl]methyl]-, dimethyl ester, (3S,8S,9S,12S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 206361-99-1 CAPLUS
CN Carbamic acid, [(1S,2R)-3-[[(4-aminophenyl)sulfonyl](2-methylpropyl)amino]-2-hydroxy-1-(phenylmethyl)propyl]-, (3R,3aS,6aR)-hexahydrofuro[2,3-b]furan-3-yl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.